

WHAT IS CLAIMED IS:

- 1 1. A thin-film magnetic head comprising:
2 magnetic layers each containing two or more elements of Co, Ni, and Fe;
3 wherein said magnetic layers are plated films, and a magnetic layer, of said
4 magnetic layers, which is disposed near a magnetic gap is a plated magnetic film containing Co,
5 Ni, and Fe, with $20 \leq \text{Co} \leq 40 \text{ wt\%}$, $0 < \text{Ni} \leq 2 \text{ wt\%}$, and $60 \leq \text{Fe} \leq 80 \text{ wt\%}$, and having a
6 saturation magnetic flux density of 23,000 gauss or more.
- 1 2. A process for production of a thin-film magnetic head with magnetic layers
2 each containing two or more elements of Co, Ni, and Fe,
3 wherein said magnetic layers are formed by electroplating in a plating bath having
4 a pH value of 2 or less, and
5 a magnetic layer, of said magnetic layers, which is disposed near a magnetic gap
6 is a plated magnetic film containing Co, Ni, and Fe, with $20 \leq \text{Co} \leq 40 \text{ wt\%}$, $0 < \text{Ni} \leq 2 \text{ wt\%}$,
7 and $60 \leq \text{Fe} \leq 80 \text{ wt\%}$, and having a saturation magnetic flux density of 23,000 gauss or more.
- 1 3. A process as in 2, wherein the magnetic layers are formed in a plating bath
2 containing saccharin sodium as a stress relaxing agent.
- 1 4. A process for production of a thin-film magnetic head as defined in claim 3,
2 wherein the plating bath contains saccharin sodium in an amount of 0.5-2 g/L.
- 1 5. A thin-film magnetic head of write-read separate type in which a read element
2 is a magneto-resistive effect element and a write element is an inductive magnetic head,
3 wherein upper and lower magnetic cores of a write head partly or entirely have
4 magnetic layers consisting of magnetic films each containing two or more elements of Co, Ni,
5 and Fe, the magnetic films are plated films, a magnetic layer, of the magnetic layers, which is
6 disposed near a magnetic gap is composed of a plated magnetic film containing CoNiFe, with 20
7 $\leq \text{Co} \leq 40 \text{ wt\%}$, $0 < \text{Ni} \leq 2 \text{ wt\%}$, and $60 \leq \text{Fe} \leq 80 \text{ wt\%}$, and having a saturation magnetic
8 flux density of 23,000 gauss or more, and the plated magnetic film is a soft magnetic thin film
9 formed by electroplating in a plating bath having a pH value of 2 or less.